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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,928	12/29/2003	Gerhard Schrom	884.A75US1	6688
21186	7590	04/11/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.			TRAN, ANH Q	
P.O. BOX 2938				
MINNEAPOLIS, MN 55402			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/749,928	<b>Applicant(s)</b> SCHROM ET AL.	
	<b>Examiner</b> Anh Q. Tran	<b>Art Unit</b> 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,9-11 and 13-24 is/are rejected.
- 7) ☒ Claim(s) 3,5-8 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 recites the limitation "the die" in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 15-19 are rejected as dependent on claim 14.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4, 9-11, 13, 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Jessee et al (4,728,817).

Jessee shows:

1. A circuit comprising: a first driver (Q6) to receive a first signal from a first input port (output from the first two parallel inverters); a second driver (Q5) to receive a time-delayed version (the first and the second inverters in series is delayed signal) of the first signal from a second input port (output from the second two parallel inverters); and a transformer (T1) coupled to the first driver and the second driver, the transformer to provide an output signal to an output port (20).

2. The circuit of claim 1, further comprising a capacitive load (C1) coupled to the transformer.
4. The circuit of claim 1, further comprising an inductor (N3) coupled to the transformer and a transistor (Q2) coupled to the inductor.
9. An apparatus comprising: a plurality of circuits (A and B circuits, Fig. 2), each of the plurality of circuits including a plurality of drivers (Q5A, Q6A) coupled to a first transformer circuit (T1A), wherein the first transformer circuit in each of the plurality of circuits is coupled to a second transformer circuit (T1B) including a center-tap (20) and each of the plurality of drivers in each of the plurality of driver circuits is coupled to a separate input port (U1A, U1B).
10. the apparatus of claim 9, wherein the first transformer circuit in at least one of the plurality of driver circuits comprises a loosely coupled transformer (CT1A).
11. The apparatus of claim 10, further comprising a capacitive (inherent element since capacitive are part of circuit, conductor, wires, etc.) load coupled to the center-tap.
13. the apparatus of claim 9, wherein the second transformer comprises an auto-transformer.

The apparatus described above is applicable to the method claims 20-24, also, the control signal source 16 is a pulses signal, col. 2, line 41, (pulses signal is considered as a digital signal).

***Allowable Subject Matter***

3. Claims 3, 5-8, 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stanley (6,556, 053) discloses a half-bridge gate driver circuit having two drivers, a delay, transformer, and schmitter trigger circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Q. Tran whose telephone number is 571-272-1813. The examiner can normally be reached on M-TH (7:00-5:30) Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2819

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**ANH Q. TRAN**  
**PRIMARY EXAMINER**



4/5/05